AMENDMENT

In the claims:

Please amend claim 1 and please enter new claims 22-32, as set forth in the complete listing of the claims hereafter. This complete listing of the claims replaces previous claim listings.

1. (currently amended) A method for detecting the presence or absence of cell fusion mediated by a viral envelope protein, which comprises:

contacting a system comprising a first cell with a second cell, wherein:

the first cell comprises a first reporter molecule fragment and a viral envelope protein;

the second cell comprises a second reporter molecule fragment and a viral envelope protein receptor capable of binding to the viral envelope protein of the first cell; and

the first reporter molecule fragment and the second reporter molecule fragment combine to form a functional reporter molecule upon fusion of the first cell with the second cell; and

detecting the presence or absence of a signal produced by the functional reporter molecule, whereby the presence of cell fusion mediated by a viral envelope protein is detected by the presence of a signal and the absence of cell fusion is detected by the absence of a signal.

2. (original) The method of claim 1, wherein the first reporter molecule fragment is an α-fragment of β-galactosidase and the second reporter molecule fragment is an Ω-fragment of β-galactosidase.

3. (withdrawn) The method of claim 1, wherein the first reporter molecule fragment is an Ω-fragment of β-galactosidase and the second reporter molecule fragment is an α-fragment of β-galactosidase.

4. (original) The method of claim 1, wherein the second cell further comprises a viral envelope co-receptor protein.

5. (original) The method of claim 4, wherein the viral envelope protein is HIV gp160, the viral envelope protein receptor is CD4, and the viral envelope protein co-receptor is CCR5.

6. (original) The method of claim 5, wherein the first cell further comprises HIV rev.

7. (withdrawn) The method of claim 4, wherein the viral envelope protein is HIV gp160, the viral envelope protein receptor is CD4, and the viral envelope protein co-receptor is CXCR4.

8. (withdrawn) The method of claim 7, wherein the first cell further comprises HIV rev.

9. (original) The method of claim 1, wherein the viral envelope protein is selected from the group consisting of HIV gp160, Ebola GP, HTLV SU, and influenza HA.

10. (original) The method of claim 1, wherein the signal is chemiluminescent.

11. (original) The method of claim 1, wherein the viral envelope protein is exogenously expressed.

12. (original) The method of claim 1, wherein the viral envelope protein receptor is exogenously expressed.

13. (original) The method of claim 1, wherein the viral envelope protein is endogenously expressed.

14. (original) The method of claim 1, wherein the viral envelope protein receptor is endogenously expressed.

15-20. (Cancelled)

21. (previously presented) The method of claim 1, wherein the system comprises a molecule that inhibits cell fusion.

22. (new) The method of claim 1, wherein one of the first and second reporter molecule fragment comprises a fragment of beta-galactosidase consisting essentially of an N-terminal alpha region of beta-galactosidase.

23. (new) The method of claim 22, wherein the N-terminal alpha region of beta-galactosidase spans about amino acid 1 to about amino acid 100.

24. (new) The method of claim 23, wherein the N-terminal alpha region of beta-galactosidase spans about amino acid 1 to about amino acid 85.

25. (new) The method of claim 1, wherein one of the first and second reporter molecule fragment lacks a functional N-terminal alpha region of beta galactosidase.

26. (new) The method of claim 25, wherein one of the first and second reporter molecule fragment lacks a region spanning about amino acid 10 to about amino acid 37.

27. (new) The method of claim 1, wherein one of the first and second cell is selected from the group consisting of NIH-3T3 cells, QT6 cells, Cf2Th cells, MV1 Lu cells, Sf9 cells, primary T-cells, human T-cell line cells, H-9 cells, U-87 MG cells, SCL1 cells, CEM cells, HeLa cells, CHO cells, SF33 cells and 293T cells.

28. (new) The method of claim 1, wherein each of the first and second cell is selected from the group consisting of NIH-3T3 cells, QT6 cells, Cf2Th cells, MV1 Lu cells, Sf9 cells, primary T-cells, human T-cell line cells, H-9 cells, U-87 MG cells, SCL1 cells, CEM cells, HeLa cells, CHO cells, SF33 cells and 293T cells.

29. (new) The method of claim 1, wherein one of the first and second cell is a human cell.

30. (new) The method of claim 29, wherein the human cell is selected from the group consisting of 293T cells, HeLa cells and SF33 cells.

31. (new) The method of claim 1, wherein each of the first and second cell is a human cell.

32. (new) The method of claim 31, wherein each human cell is selected from the group consisting of 293T cells, HeLa cells and SF33 cells.